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THE VALIDITY OF BALANCED AND UNBALANCED
GROWTH THEORIES WITH RESPECT TO THE
PROCESS OF ECONOMIC DEVELOPMENT

by

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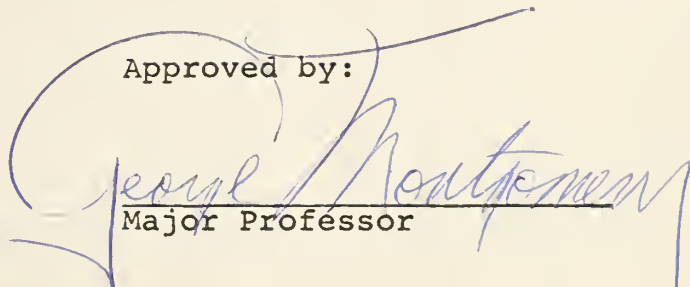
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INTRODUCTION

In the last two decades, the problem of underdevelopment has received a world wide attention in the intellectual circles in both developed and underdeveloped countries. A massive amount of literature has been written on the subject of development which tends to show the complexity of this problem. There is an endless variety of points of view about economic development and all are valuable in their own way; but it would be naive to expect all of these views and theories, even the most valid, to be workable in each particular underdeveloped country. Each country has certain cultural, political, social patterns, and forces of its own. These patterns and forces, such as the difficulty of adaptation to western technological advancement and the existence of interest groups, illiteracy, etc., can at any time create obstacles to or completely paralyze any program aiming at the economic development. This fact, however, cannot be looked at as a deficiency of theories of economic development.

John P. Owen of the University of Houston in an article in Southern Economic Journal in July, 1956 (pp. 126-133) categorizes the economic development theories which have developed throughout the year into: the Classical, the Marxian, and the Schumpeterian theories. The author having the similar view of the development of these theories agrees with Professor Owen on this issue. Though admitting that there are an enormously large number of theories of economic development, one can categorize them under the above mentioned categories. The modern theories, especially those reviewed in this paper are basically Schumpeterian, though

one cannot rule out the fact that the authors of these theories have displayed a great degree of originality in presenting their theories; one cannot help noticing the Schumpeterian influence on these writers.

The Classical economists saw the development as a process which gradually and at a diminishing rate increased until it encountered a ceiling of the stationary state. In their analysis, it is the law of diminishing returns and the population growth which paralyze economic development. The classical analysis still holds valid in many over-populated, agricultural, underdeveloped countries.

In the Marxian approach, it is the strong motivations of the greedy capitalist to accumulate wealth and imperialism that undermine the total well-being of the economically less developed countries.

The Schumpeterian system, applying functional analysis, maintains that entrepreneurs by employing innovations create a stimulus to the economy in order to break the chain of the stationary equilibrium. The level of economic development at any time is determined by the amount of innovations applied to the economy previously.

Most of the theories and concepts which have been developed in the past two decades are marked by the Schumpeterian influence. The first two theories being dealt with in the present paper, although digressing and emphasizing different points, are Schumpeterian in essence. Both the "balanced" and "unbalanced" growth theories show the Schumpeterian influence rather vividly. The difference

between the "balanced" and "unbalanced" is the time, the amount, and the procedure by which innovations and investments should be applied to an underdeveloped economy; but basically, they are follow-ups on the Schumpeterian theory of innovations.

Although the contemporary writings on economic development may differ greatly on the process of development and implementation of policies regarding development, they all agree that the stage of underdevelopment is one with a "quasi-equilibrium" character. They also all agree that a "vicious circle of poverty" exists in an underdeveloped economy and that breaking out of this circle would mean that the underdeveloped economy is on its path of development. But until this happens, the forces which create the "vicious circle" would act and react upon one another to keep the underdeveloped country in the "quasi-equilibrium," or in other words, the stagnation stage of underdevelopment. Some writers see the solution in the application of "balanced" doses of investment in "complementary" industries; while others see the solution in the application of a "minimum quantum" amount of investment in strategic industries; and still others see the solution in the creation of a considerable amount of agricultural surplus large enough to feed the industrial sector of the economy.

It is, therefore, the purpose of this paper to discuss the meaning of economic underdevelopment and the leading theories of "balanced", "unbalanced", and "agricultural surplus"; which concern themselves with the advancement of ideas as to how these countries should break the bonds of "quasi-equilibrium" state of underdevelopment and to achieve their self-sustaining growth.

And also to consider to what degree these theories could be applicable to the underdeveloped areas.

The theories discussed in this paper were chosen for review primarily because of the author's acquaintance with these theories as a result of course work and independent research. Hirschman and Leibenstein were chosen because there is a marked difference in their approach in advancing "unbalanced" theories of development. On the other hand, Nurkse was chosen as the only representative of "balanced" development theory mainly because the author could not find another theory representing the "balanced" development theory which would be relatively and markedly different in approach and construction from that of Nurkse.

I. MEANING OF ECONOMIC UNDERDEVELOPMENT,
THE VICIOUS CIRCLE OF POVERTY, AND
THE THEORY OF BALANCED GROWTH

While considering the mass of literature written on the subject of economic development, one might notice the fact that there is a variety of criteria for underdevelopment. A country may be "labeled as underdeveloped merely or mainly because it has a low ratio of population to area."¹ Scarcity of capital is also often used as a criterion for economic underdevelopment. The low level of per capita out-put and the per capita annual income are also used quite frequently to classify and categorize the underdeveloped countries. The last criterion (the level of per capita annual income) is the one most widely used.²

Hence, the economically underdeveloped country is one in which the per capita annual income is relatively low (approximately below \$500 a year); but in which there is potential for this per capita income to grow. The natural resources exist but are unutilized because of the lack of enough capital. There is a ceiling on the level of per capita income which can be attained. The per capita income level is not much higher than the level of

¹Jacob Viner, "The Economics of Development," The Economics of Underdevelopment, (New York: Oxford University Press, 1963), p. 9

²Ibid., p. 12

per capita consumption. This economic stagnation is persistent.

An economy as such in itself is a reason for its underdevelopment; because the per capita income is not higher than the level of per capita consumption to permit enough private saving for capital accumulation. Such an economy is on the level of subsistence. The majority of the population are farmers with a low level of productivity. The productivity is high enough to permit the survival of the farmer's family; but not high enough to permit the farmer to save some of his income since his income is not higher than his consumption. The formation of savings necessary for capital accumulation would be a difficult task under such a circumstance. Consequently, when the level of income is low, there is a small capacity to save; and when there is a small capacity to save, there is not much chance for the capital to accumulate to permit increased productivity which would in turn increase income.³ On the other hand, the underdeveloped countries are also characterized by the lack of inducement to invest. Even the minority few who have an income higher than their level of consumption and can afford to save do not have enough incentive for investment. This lack of incentive to invest is potentially attributed to the limitation on the size of market which in itself means low productivity. To increase productivity, however, there is a need for technological implements which because of their indivisibility require a substantial amount of money capital in

³Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries, (New York: Oxford University Press, 1953), p. 1

order to be purchased. The smallness of the size of the market and the inelasticity of demand, however, discourage the application of such modern technological implements in any particular industry.⁴

Considering the above discussion, one realizes that probably the most important and crucial task of underdeveloped countries is to break out of the "vicious circle of poverty." There have been some attempts made by authors to provide a theory which would explain how a country should bring itself out of such a circle. Of these theories, the Doctrine of Balanced Growth, first advanced by Schumpter and later on (with some divergence) by Professor Nurkse, appears to be more comprehensible and useful to the underdeveloped countries. The Schumpeterian theory explains the shock waves which tend to break the "circle of poverty" in terms of "innovations" undertaken by "entrepreneurial class."⁵ Professor Nurkse explains that waves of "investments" applied to complimentary industries could create a situation whereby the underdeveloped countries could "break the bonds of the stationary equilibrium of underdevelopment."⁶

He explains the smallness of size of the market as a force limiting productivity. The size of the market could be enlarged by applying simultaneous doses of investment to a number of industries which are complementary and which depend on one another

⁴Ibid., p. 10

⁵Joseph Schumpeter, The Theory of Economic Development, (Cambridge, Massachusetts: Harvard University Press, 1961), pp. 128-157

⁶Nurkse, op. cit., p. 14

for their success. The enlargement of the market can provide external economies which might make the increasing return to scale for the individual firm possible.

Professor Nurkse claims that the "disguised" unemployment in the "densely" populated areas could be used as a source of capital formation. He argues that a large segment of the rural population in these areas could be removed and put to work in a "capital project" without reducing the total agricultural output. The marginal productivity of labor in the over-populated peasant economies is at least zero if not negative, although everyone seems to be working.

Since both productive and non-productive labor work on the farm, the productive labor supports the non-productive labor. This way the savings of the productive labor is wasted; but should the non-productive labor be sent off to work on a "capital project", such as building roads, bridges, railroads, etc.; and the productive labor still keep on supporting them, their saving would not be wasted and is used in the formation of capital. Domestic saving and foreign economic aid could also be helpful in financing the employment of this rural "disguised" unemployed.

The Case for Sparsely Populated Area

Most of the man-power in sparsely populated areas is engaged in agriculture. Some of this man-power can be released by increasing the productivity of agriculture. The agriculture productivity can be raised through employing methods which do not require a substantial amount of capital. For example, agricultural

productivity may increase through the application of modern fertilizers, pest control, etc. Therefore, to accumulate capital in a sparsely populated country, agricultural productivity must be raised.⁷ When the productivity in agriculture is increased, the sparsely populated country can supply its industrial sector with labor, and consequently, use the labor for the process of capital accumulation. The important point stressed by Professor Nurkse here is that there must be enough employment opportunities created so that when the surplus man-power is released from the agricultural sector, it can be absorbed either by "capital projects" or by industries. The agricultural improvements, although an important "pre-requisite" for the economic development of sparsely populated areas, are not necessarily pre-conditions for industrialization.⁸ Even though this may be true, there still remains one fact, that the low productivity is a major obstacle to development in both the sparsely or densely populated countries.

There is, however, a need for initial investment to bring about the increase in productivity. Professor Nurkse states that the initial improvement in productivity can stimulate the growth and mobilization of domestic savings.

To finance this initial improvement, there is a need for "outside help" (foreign investment), because the capacity to save domestically is not only dependent upon the level of productivity, but also on the propensity to consume. The propensity to consume in the underdeveloped areas is rather high, which is mostly due to

⁷Ibid., p. 53

⁸Ibid., p. 54

the "demonstration effect", "conspicuous consumption", or "keeping up with the Joneses." The inequality of living standards among the nations, the new and modern products coming out of the developed countries; and finally the strong desire to immitate pushes the propensity to consume in the underdeveloped countries even higher. To counteract the demonstration effect, governments could take steps to make the forced saving possible so that it can finance the "capital projects" and create jobs for the disguised unemployment.

Some countries such as Communist China and Japan in early stages of development found the solution in economic isolation to counteract the "demonstration effect" and "conspicuous consumption." They further implemented forced saving.

Foreign business investments are all also different sources of capital formation. Once the process of growth has been put into motion, parts of the income are put aside for the capital formation. This can be looked at as a sure way in which the dynamics of growth will provide enough forces for the process of capital accumulation to take place. The initial impulse to the process of growth can be provided by foreign loans, direct foreign investment, and finally the creation of a flow of foreign trade may make it possible for a backward economy to get the process of growth underway.

II. "UNBALANCED" GROWTH THEORY: HIRSCHMAN

Hirschman, in developing his theory of unbalanced growth, admits the existence of the persistent "vicious circle of poverty." He agrees that there is a low capacity to invest and that there also exists the lack of effective inducement to invest whatever capital is already available in the underdeveloped areas. He claims that most of the underdeveloped countries are desperately in need of some kind of "inducement mechanism" in order to take advantage of their development potential. This ability, he believes to be a scarce resource which should be induced by some sort of mechanism.

Hirschman disagrees with the "balancers" on the point that the level of per capita income is not much higher than the level of per capita consumption to permit the domestic saving. He argues that there is saving in the underdeveloped countries, but is basically the lack of ability to channel "existing or potentially existing saving into available productive investment opportunities."⁹ The act of saving in itself, however, does not stimulate the act of investment. Here one can clearly see the Schumpeterian influence on Hirschman. There is actually no difference in the role of Schumpeter's "entrepreneurs" and Hirschman's concepts of "ability to invest." Schumpeter's entrepreneurs and only they are the ones

⁹A. O. Hirschman, Strategy of Economic Development, (New Haven, Conn: Yale University Press, 1958), p. 38

able to channel the existing investment into productive activities such as employing and undertaking innovations. In other words, only they have the "ability to invest". Hirschman relates the ability to invest to investment activity, but both of these two are the characteristics inherent in the Schumpeterian entrepreneurs.

The initial investment, Hirschman maintains, will give more stimulus to the expansion of the investment capacity, and the investment of one period motivates the investment of the subsequent period.¹⁰ He further argues, that balanced growth suggests a "self-contained modern industrial society over a self-contained traditional society," and that this doctrine encourages "central planning and governmental control."¹¹ The balanced growth, Hirschman claims, fails to take into consideration the existence of the "creative ability" in the underdeveloped areas. He further argues that the Doctrine of Balanced Growth tends to show the people of the underdeveloped countries as uninterested in change, and if this is so, how could the doctrine find enough entrepreneurial efforts among such people to set up a whole range of complementary industries which would be dependent upon one another for their success. Hirschman, on the whole, is under the impression that the Doctrine of Balanced Growth is nothing but a modified Keynesian underemployment equilibrium being applied to the underdeveloped economies. The Keynesian analysis of "slump"

¹⁰Ibid., p. 42

¹¹Ibid., p. 63

in the underemployment equilibrium, maintains that the government should take action to step up the production by many firms because the increase in production by one individual firm is not sufficient to stimulate the production in the rest of the economy.¹² Although this analysis may be workable in the more advanced economies, in an underdeveloped economy bounded by the "vicious circle", the government action as such would not have effective results. Furthermore, if the technical skills in a country are a limitation and a paralyzing factor to the number and amount of projects that an underdeveloped economy can undertake at any one time, it would be unrealistic to assume that such a country is able to apply the Doctrine of Balanced Growth.

Hirschman believes economic development to be a chain of "lead-lag" events. The ideal situation is that of moving away from equilibrium, for each move toward an advancement is "induced by a previous disequilibrium" and which by itself will motivate still another "disequilibrium."¹³ Even increased production in one industry will create a disequilibrium and pressure for a similar increase in a complementary industry. Thus, there is an ample need for the existence and creation of external economies to create enough inducement for the private investors to invest. The creation of external economies as such seems to be the inducement mechanism necessary to stimulate the investment ability in order to take advantage of existing saving and to undertake

¹²Ibid., p. 54

¹³Ibid., p. 76

investment activity. In substance, an initial investment can create enough inducement for more investment by creating "complementarities and external economies."

Such being the case, the question arises as to how and where should these initial investments take place to create such inducement for further investment undertakings? To this Hirschman replies that the best strategic spots for this investment undertaking is the Social Overhead Capital; such as "public administration, education, health, transportation, power, agriculture, industry, urban development, etc."¹⁴ But since there is a limitation on resource of the country, it forces a choice among the alternatives. The best projects, he maintains, are measured by their "marginal social productivity." "Marginal Social Productivity" being the ratio of "benefits to costs" of a certain project for the security as a whole as compared to the "Marginal Private Productivity" which is the ratio of "benefits to costs" of a certain project to the private firm or an individual. Among the alternatives, the Social Overhead Capital are important because they are, after completion, a direct inducement to the Directly Productive Activities. Furthermore, Social Overhead Capital is important because it contributes to the general growth of an economy rather than one particular economic activity. Finally, the importance of Social Overhead Capital as an inducement mechanism is more evident in the countries where the DPA are undertaken primarily by individuals. In this case, because of the

¹⁴Ibid., p. 76

indivisibility, the investment in Social Overhead Capital cannot be undertaken by the private sector and is usually thought of as being a governmental responsibility. Without these Social Overhead Capital, the "primary, secondary, and tertiary activities could not operate." The less adequate the supply of Social Overhead Capital, the more expensive and higher is the cost of production in DPA. Hirschman, thus, believes that development can take place either with shortage or with excess capacity of Social Overhead Capital. To show the development process via shortage and excess capacity of Social Overhead Capital, we reproduce the original graph presented by Hirschman.¹⁵

The vertical axis is the total cost of DPA and the horizontal axis is the cost and availability of Social Overhead Capital. The "two dimensional" cost curves, are indicative of the fact that the two elements (SOC, DPA) are not dependent variables and are not "iso-quants." The forty-five degree line presents the balanced growth and equilibrium line where all the optimal points are situated. These points are optimal because they represent the smallest sum and the best co-ordination of SOC and DPA.

Where there is a shortage of SOC (point A), the cost of production in DPA increases because the producers in the DPA sector will have to spend some money on road construction and the building-up of other SOC facilities in order to improve the existing inefficiency and inadequacy present in SOC sector. These industries in DPA sector will try to build and invest in SOC in order

¹⁵Ibid., p. 87

Figure 1. Growth Via Shortage and Excess
SOC availability and cost
Capacity of DPA and SOC

to decrease their own cost of production. For example, the mining industry in an area where there is a total lack of roads, railroads, truck routes, and so on may see it profitable to invest some money in building railroads, paved roads, and truck routes in order to decrease the cost of production. At point B_1 then the availability of SOC increases, and consequently, the cost of production in DPA decreases. This continues up to point B. At this point, since the industrial capacity has grown, even this amount of B_1B of SOC becomes insufficient and inadequate. Again the cost of production in DPA starts climbing up to point C_1 and again industries may find it necessary to increase the capacity of SOC to the point C. This "lead-log" continues indefinitely until the economic development is achieved.

Now we can consider development via excess SOC. We notice on the graph that when the cost and availability of SOC is increased from point A to A_1 , the cost of production in the DPA decreases also. Up to the point A_1 , there is an excess capacity of SOC which encourages and induces investment undertakings in DPA. For example, building a dam on a river may create enough electric power to induce the investors to invest in a light manufacturing industry or a fertilizer plant, etc. The excess capacity of SOC will induce investment up to point A_1 where the existing capacity becomes insufficient and inadequate. At this point we notice that the cost of production in DPA will start climbing up to reach point B. If at this point, there are more SOC, projects undertaken and the capacity of SOC increases. Again the cost of DPA output increases and it also induces more expansion in DPA activity.

These two alternatives will create enough pressure for the expansion of the economy. The first alternative has a "compulsion" effect on the investors in DPA to expand the capacity of SOC while the second alternative, development via excess SOC, attracts the investors and entrepreneurs to invest "voluntarily." To say which one of these alternatives should be given preference is, Hirschman believes, up to special location of the region and the choice of entrepreneur.¹⁶

Forward, Backward Linkage

Hirschman argues that for the investment in DPA to be effective enough to create inducement to investment, the stress should be put on those industries which either have "forward or backward linkages." The forward linkage effect simply means that the investment in a non-primary productive activity will create enough pressure to induce the increase in production of its raw material input. The establishment of dairy industry will not only induce the increase in production of dairy product, such as milk, butter, etc. Forward linkage, on the other hand, will be created as a result of pressure of demand. It usually takes place in industries whose final product is a consumer produce and is bought by the consumer to satisfy the demand. The pressure of demand creates increase in investment in these industries.

The forward linkage will induce the expansion of the out-put of the industries whose out-put is used as raw materials for the

¹⁶Ibid., p. 87

"forward linkage" industry. To satisfy the increased consumer's demand for milk, the milk bottling plants need both an increase in milk and an out-put increase in bottles and cartons. Here the milk bottling plant has a "forward" and a "backward linkage effect."¹⁷

Inflation, Balance of Payments Disturbances, Population Pressures;
as Stimulants to Growth

Hirschman argues that the path of development is one full of pressures, disturbances and uneasiness; that inflation, population pressures, and balance of payments disturbances are useful because they are essential parts of the development process. Inflation is an "inducement mechanism" while there is a general rise in prices there also exists a general rise in productivity.

The increase in imports and the fluctuation in the exchange rates may induce spending in one period; the decrease in imports and increase in exports may increase accumulation of exchange in the next period. The import restriction can be reduced whereby the imports increase, new markets and new needs develop, which will create inducement for increase in production of domestic goods; and if it was observed (by the policy makers) that the domestic producers cannot compete with the foreign producers, then the import restriction can again be imposed and protective policies can be set into motion.

As for population pressure, taking Duesenberry's "fundamental psychological postulate" which suggests that people will tend

¹⁷ Ibid., p. 115

to resist any lowering of their wages during the depression;¹⁸ Hirschman maintains, that people would also tend to react with a "counter pressure, i.e. to activity designed to maintain or restore the traditional standard of living of the community."¹⁹ He further suggests that as communities keep these counter pressures up, they develop the ability to undertake some activity to control its environment, its rate of population growth, and to organize itself for development.

Thus we can observe that to Hirschman, population growth, inflation, and the balance of payment disturbances could be used as "inducement mechanism."

¹⁸Ibid., p. 175

¹⁹Ibid., pp. 176-182

III. LEIBENSTEIN: "THE CRITICAL MINIMUM EFFORT THESIS"

The second theory of "unbalanced" growth chosen for this study is Leibenstein's "critical minimum effort thesis." Leibenstein sees the stage of underdevelopment as a persistent quasi-equilibrium system as opposed to a "disequilibrium" economic system in the more developed countries.²⁰ In explaining his theory, Leibenstein chooses four main hypotheses. The first being that the backward economies have a "quasi-equilibrium" character. The second states that if this equilibrium is disturbed by forces to increase the per capita income (Leibenstein also uses the per capita income as an index of economic development), other forces will be motivated to decrease the per capita income. The latter he calls "income-depressing forces" and the former "income-raising forces." Next in line among his hypotheses maintains that in the "quasi-equilibrium" stage of the backward economies, the effect of the income-depressing forces are much stronger than those of the income-raising forces. Finally, the last hypothesis states that there are no ceilings on the effects of the income generating forces once they are strong enough to bring the economy out of the equilibrium; and if there is such a ceiling, it is much higher than the effects of the income depressing

²⁰Harvey Leibenstein, p. 15

forces.²¹ On the basis of the above hypotheses, he draws his main idea namely that of "critical minimum effort thesis."

Leibenstein's definition of the "quasi-stable equilibrium stage", is similar to the classical definition of equilibrium state of the economy where the forces such as population growth, pressures, falling rate of profit, etc., would always tend to bring the per capita income down to a subsistence level. In this stage of underdevelopment, the process of economic development, Leibenstein believes, will depend on the out-come of the "struggle between conflicting forces that operate simultaneously"²² to bring the per capita income down and the forces which operate to increase the per capita income.

Forces such as "sudden discoveries of land, gifts of capital, the discovery out-let for excess population, the appearances of especially gifted economic leaders or organizers, etc.,"²³ are stimulants" which force the economy away from the equilibrium and tend to raise the level of the economy. These stimulants in a "quasi-stable" equilibrium economy would motivate forces such as population growth, etc., "shocks" to counteract the effects of the stimulants. Besides these "shocks" and "stimulants", there are also "displacements" which are the changes that come from outside of the system causing a disequilibrium in the system which "results

²¹Harvey Leibenstein, Economic Backwardness and the Economic Growth, (New York: John Wiley and Sons Inc., Science Edition, 1963), p. 16

²²Ibid., p. 29

²³Ibid., p. 32

in a change from an equilibrium state to a disequilibrium state."²⁴ Examples of these displacements, are the exogeneous improvement of technical knowledge, unexpected increase in the capital stock, etc. The process of actions and counter-actions by "stimulants" and "shocks" give the system its stability. The system is "stimulant proof" as long as these series of "stimulants" are small.

Leibenstein divides the activities of a "quasi-equilibrium backward system" into three categories: production process, productive process, and educative process. Production process, he explains, is an activity whereby the raw material and resources are employed in order to produce consumer goods and services. Productive process is the process of maintenance of subsistence level of living and population size by the members of the society. Educative process is the process of maintenance of the "mores", traditions, and "the knowledge of the population."²⁵

He points out that in most underdeveloped areas, the educative process is the main process which maintains the mores and traditions which in turn provide a substantial resistance to any move toward development. This process rejects the western ideas, the technological advancement, and the reforms which may be introduced in society in order that the sustained growth may be achieved. He believes that the achievements of the sustained growth require a considerable amount of change in the basic "mores, habits, and traditions of the population."²⁶ He claims that with

²⁴Ibid., p. 33

²⁵Ibid., p. 31

²⁶Ibid., p. 35

the existence of the educative process in most of the underdeveloped areas, these changes could not take place without a substantial resistance from the populace who have been engaged and who have accepted the educative process as an inherent traditional force.

Leibenstein states that the system is "quasi-stable" and not completely stable. Certain knowledge and certain types of capital have cumulative effect and once they have achieved a certain level they cannot be pushed back down to a lower level; after all, how can people "forget skills (or not pass them to the succeeding generations), destroy capital, or stamp out knowledge",²⁷ once acquired, there are no apparent forces that could accomplish the task of eliminating this cumulative effect. Furthermore, the income-raising or income-suppressing forces may only act and react upon each other to force the system into an equilibrium position which is only similar to the previous one and is semi-stable. For these reasons, he maintains that that system is only in a "quasi-stable equilibrium" position.²⁸

"Critical Minimum Effort Thesis"

As was mentioned before, Leibenstein claims that the process of growth is the result of the outcome of the struggle between the "shocks" and "stimulants" or "income-depressing" and income-raising" forces. It was also mentioned above that should the

²⁷Ibid., p. 36

²⁸Ibid., p. 37

initial "stimulants" be small the system becomes "stimulant proof", meaning that the system would not be stimulated so that it would be moved up to a new position of sustained growth. Therefore, "it is necessary", Leibenstein maintains, "that the initial stimulant or stiumlants to development be of a certain critical minimum size."²⁹ If the initial stimulants are below this "critical minimum size", the efforts to achieve disequilibrium will be in vain. In relating the ideas of the "vicious circle of poverty" to his "critical minimum effort thesis", Leibenstein explains that the ideas of the "vicious circle of poverty" implies that the underdeveloped countries are in such a situation created by economic determinants that there is no way out and their poverty is to "persist into perpetuity." This, however, is not so, for there are many economically well developed countries which were once in this "vicious circle of poverty." He, however, explains the vicious circle idea in terms of a point of equilibrium around which the economic variables are "constant" with one another, but they would permit the variation of the state of the economy from time to time. The circle of poverty can be broken through the use of the "critical minimum effort."³⁰ The periodic and small stimulants do not provide enough force for the economically backward areas to break out of the "vicious circle." The larger periodic investments or stimulants are effective in setting into motion some income generating forces; but as soon as this happens, the income depressing forces are also motivated to

²⁹Ibid., p. 94

³⁰Ibid., p. 96

act. For small values of "stimulants", the effects of the income depressing forces are stronger; they are able to push down the level of the economy to the semi-stable position where it was before the income raising forces acted upon it.

As was explained before, the effects of the income depressing forces are much stronger than the effects of the income raising force for the small amounts of stimulants applied to the backward economies. From here it can be concluded that wherever the economic backwardness is persistent, the stimulants must have been small. To clarify this, Leibenstein argues that if, for example, in a backward agriculture economy, there is a small stimulant such as better means of cultivation, application of fertilizers, etc., so that the out-put increases, and if the marginal propensity to consume of the farmers is high; there will not be enough of increased out-put to take care of both the farmers' consumption and the saving required for capital accumulation. Now if this "stimulant" were strong enough to create a large increase in out-put, it would permit for the upward marginal propensity to consume of the farmer and also permit savings for capital accumulation.³¹ As it may be noticed in the above argument, Leibenstein does not introduce any income depressing force in the example; but should the farmer expect a higher return in the first example, he can cultivate the land intensively which would result in the reduction of marginal productivity or marginal return (application of the law of diminishing return). On the other

³¹Ibid., p. 97

hand, there could be a Malthusian principle at work so that as the out-put increases for the farmer in the first example, he may see it possible to support a few more children, this would, of course, mean that his consumption will go even higher. For these reasons, Leibenstein maintains that the initial investments or "stimulants" must be so large that their out-come would permit an increase in the peasant's consumption. The investment must also be large to permit enough agriculture "yield necessary to take care of the autonomous and/or induced population growth"; and enough increase in out-put of the agriculture to permit crop rotation."³² It has been mentioned that Leibenstein believes that there is a ceiling, maximum, or upper limits to the effects of the income-depressing forces while there are no such maximum or upper limits on the effects of income-raising forces. For example, the "biologically determined rate of population is three to four per cent maximum"; if the initial investments or stimulants are large so that they would permit the income-raising forces to operate beyond the maximum limits of the income depressing forces and population growth is an income depressing force, the economy would be on its path of development.³³ When a stimulant this large is used, the "critical minimum effort thesis" has been applied. To illustrate this point further, Leibenstein's original graph is reproduced.

OY shows the per capita income and the induced decline in the income. OX shows the per capita income and the induced growth

³²Ibid., p. 97

³³Ibid., p. 98

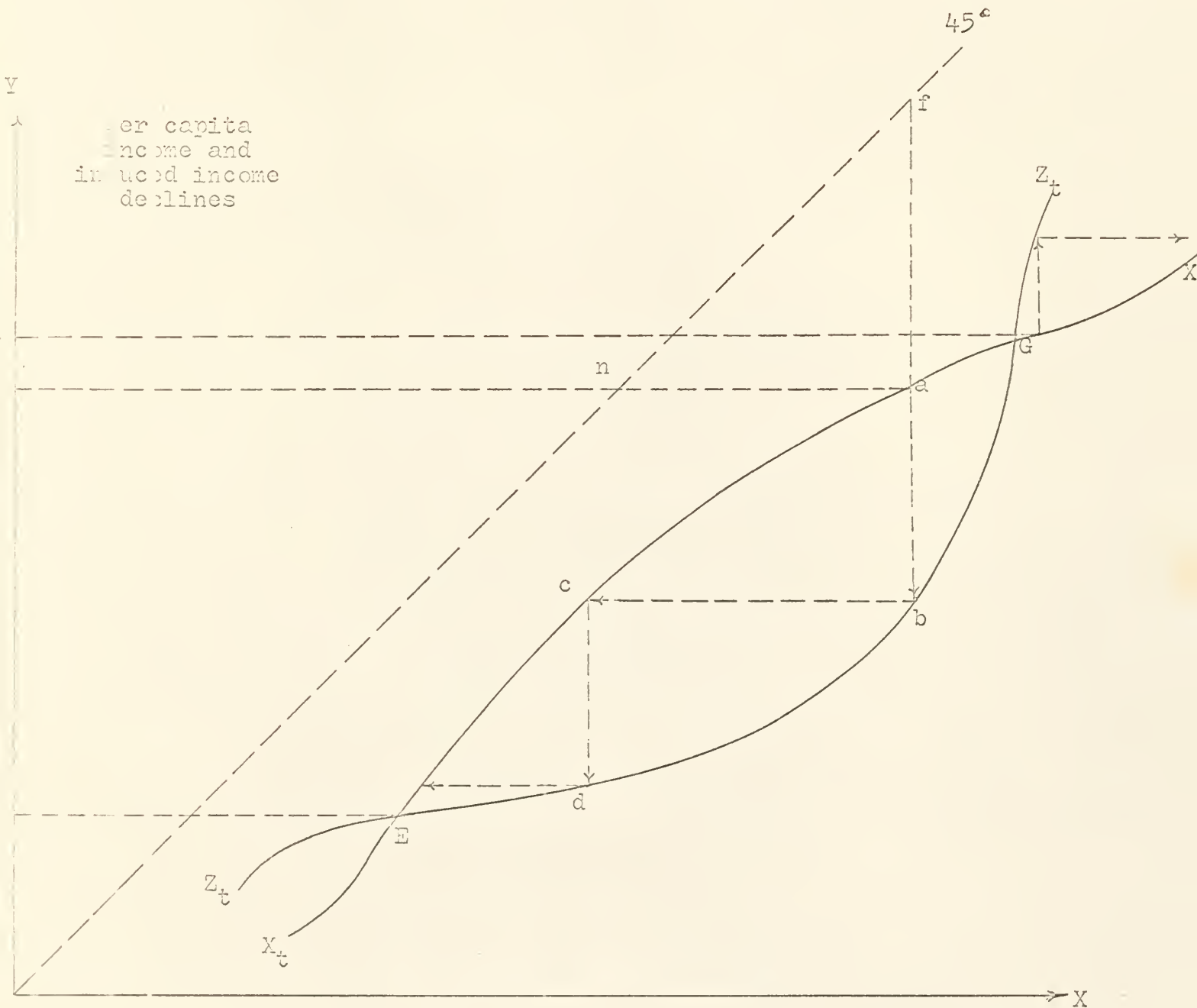


Figure 2. Stable equilibrium before the application of the "critical minimum effort", and disequilibrium after its application.

Per capita
income and
induced income
growth

in the income. Curve X_t represents the effects of all the income-raising forces at the present time, and the Z_t curve represents the effects of all the income-depressing forces at the present time. We measure the growth of income and effects of both opposite forces from the forty five degree line. Now if we assume that the income is at Om level, it motivates income-raising forces which in turn generate na . This, however, is not their only effect, they simultaneously motivate the income depressing forces which force the income down by the amount fb . (Vertical line dropped perpendicular to Z_t income-depressing forces). It can be noticed that fb is much greater than na . This can continue so that the struggle between the two forces will produce the path $abcd$ and finally it comes to rest at E which is the "semi-stable" equilibrium level. Directly opposite to this "semi-stable" equilibrium level on the OY axis, is the point e . This point is the new level of income which is much below the initial income at point m . This illustrates very well the process of the "vicious circle of poverty." Leibenstein maintains that since the Om was still not large enough to create enough momentum for the income-raising forces to generate kG amount of income, its effect was in vain.³⁴

On the second stage we suppose that the "critical minimum effort thesis" was applied to the economy. This critical minimum Leibenstein believes to be ok which creates rg which in turn will

³⁴Ibid., p. 98

create an explosive situation for the income-generating forces because income-depressing forces are not effective enough here to bring the economy below the stable point G. To illustrate this point even further, two more figures presented by Leibenstein will be reproduced.³⁵

Figure 3 is that portion of figure 2 below the stable point of G. Here the income-depressing forces are so effective as to make the situation "hopeless." All efforts below point G (less than ok in figure 2) will be useless and the income-depressing forces will be able to push the economy down to the path toward the low income quasi-stable point of E.

In figure 4, the portion above point G in figure 1 has been reproduced. It can be seen from the figure that an income high enough to pass point G and high enough so that it is above the maximum effect of the income-depressing forces can create an explosive situation so that the economy will tend to grow. This would be an unstable equilibrium.³⁶

A minimum effort is needed to permit the growth of home industries and the internal dis-economies associated with size needs to be eliminated so that they can grow. Secondly, the minimum is needed to provide for the elimination of the difficulties associated with indivisibility of investment and further to provide sufficient external economies to induce the growth of more industries. Thirdly, to provide enough momentum for the income-raising forces to over-come income-depressing forces; and finally

³⁵Ibid., p. 100

³⁶Ibid., p. 101

per capita
income and
induced income
declines

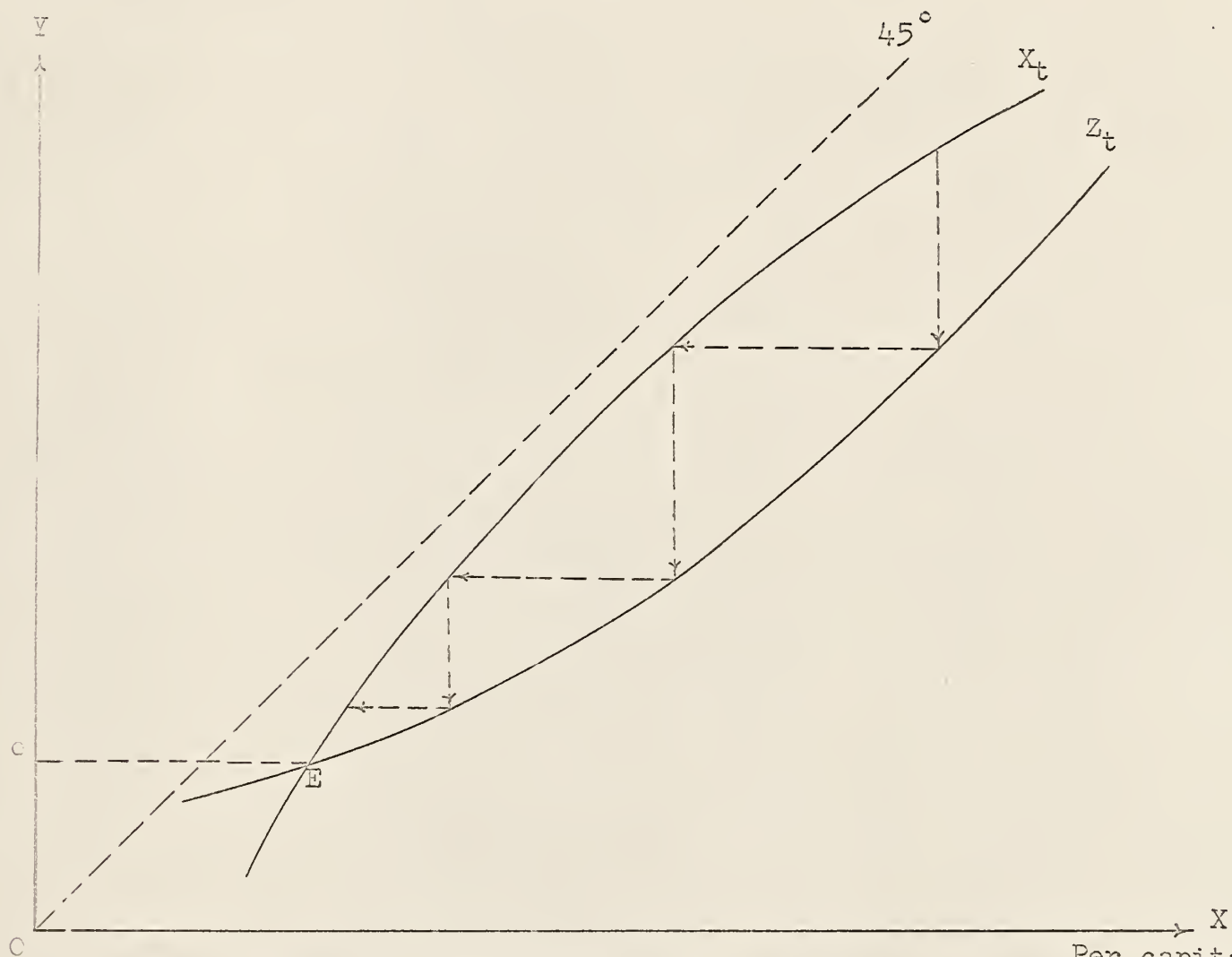


Figure 3. Stable equilibrium before the application of the "critical minimum effort."

Per capita
income and
induced income
growth

Per capita
income and
induced income
declines

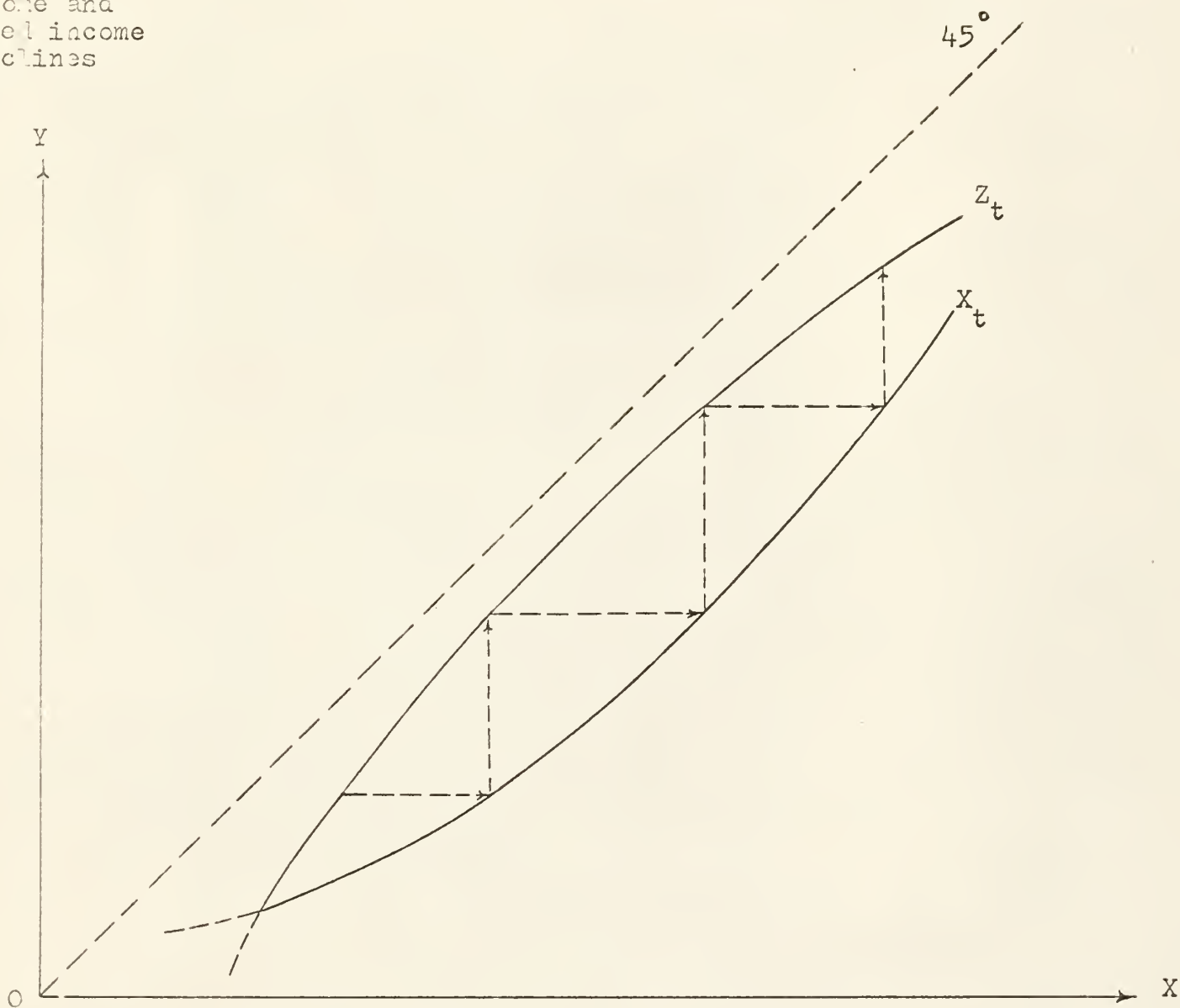


Figure 4. Disequilibrium growth after the application of the "critical minimum effort."

Income and
induced income
growth

to provide enough momentum so the "culturally and institutionally determined attitudes"³⁷ could be over-come to ease the process of economic growth.

To further the process of growth, Leibenstein argues that it is necessary that the "proper psychological attitudes and motivations must somehow be imbedded in the conscience of a sufficiently large number of people for development to take place."³⁸ He maintains that the existence of "profit-making" or income-earning opportunities are not sufficient although they are necessary for economic growth. He also believes that in the economically backward areas, the entrepreneur tends to engage in "zero-sum activities" (exploiting his fellow country man); and that this attitude must change so that entrepreneurial forces would be engaged in "positive-sum" activities. In the first case, there is only a re-distributive effect at work namely getting something from somebody else. Thus in the zero-sum activities no consideration is given, on the part of the entrepreneurs, to the fact that there is a re-distribution of income but no gain on the part of the society as a whole. The merchants (commercial enterprises) in the economically backward areas may in some cases fit into this category. The second type of activities, positive-sum activities, are those which create a gain for the whole society and which everyone can share and no one will lose anything. The positive-sum activities are much more conducive to the process of economic

³⁷Ibid., p. 109

³⁸Ibid., p. 113

development than the first type. The "industrial enterprises" are of the positive-sum type. Hence, there must be provided in the backward economies incentives for these positive-sum activities to flourish. Besides the inducements for the positive sum activities, there must flourish an entrepreneurial class must have the ability to discover investment opportunities, the ability to "have access to resources", and the ability to promote and organize the enterprise for which they are venturing. Much of Leibenstein's theory relating to the entrepreneur is based primarily on the Schumpeterian entrepreneurship theory. Libenstein gives much importance to the growth of the entrepreneurial class and its influence on economic growth. Like Hirschman, Leibenstein also believes that the "critical minimum effort" as applied to investment is more productive if it is used in the improvements and creations of social overhead capital which have greater social marginal productivity.

IV. AGRICULTURAL SURPLUS: A PRE-REQUISITE FOR ECONOMIC DEVELOPMENT

This part of the report is contributed to theories which see the need for the creation of a substantial agricultural surplus as the pre-requisite for economic development and industrialization. These theories see the agriculture as the keynote to the economic development. The process of economic development is one of transforming the backward economy from one which is primarily agricultural to one which is industrial. This process will have as its underlying and key condition the increased productivity in the agricultural sector. The theory usually assumes the existence of disguised unemployment in the agricultural sector of the backward economies which could be used as a source of capital formation. Ragnar Nurkse³⁹ (who's theory of balanced growth was discussed earlier) and W. Arthur Lewis⁴⁰ are among those who call attention to the existence of the disguised unemployment in agriculture in the underdeveloped areas. There are also those who assume that there is no disguised unemployment and that a considerable amount of agriculture surplus is needed as a pre-requisite for the economic development in any backward economy.⁴¹ As

³⁹Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries, (New York: Oxford University Press, 1953)

⁴⁰W. A. Lewis, The Theory of Economic Growth, (London: George Allen, Unwin, Ltd., 1955)

⁴¹W. Nichols, The Importance of Agriculture Surplus in Underdeveloped Countries, A paper presented at the J.S. McLean Memorial Lecture at Ontario Agricultural College, p. 5

a result, there seem to be here two possible theories written: the theory which assigns a key performance to agriculture in the process of economic development, the theory which advocates the need for substantial surplus in agriculture; and the theory which calls for the exploitation of the disguised unemployment. These two theories shade into one another, and each is dependent on the other. The first one is much more important because the agriculture surplus is needed to support the disguised unemployed in industry or in creation of Social Over-head Capital. The theory could not be applied to an economy without a high degree of economic centralization and governmental interference.

Agriculture is an important element at the beginning of economic development of the underdeveloped economies. Its importance, however, declines as the non-agricultural sector grows and expands; the elasticity of demand for agriculture product declines, a high level productivity and income is achieved in the agricultural sector, and finally the population density required in agriculture is lowered.⁴² In the underdeveloped areas, however, it takes a long time before this stage in economic development has been achieved. The first and most important step is to relieve agriculture in these areas from the burden of the high population growth. Agriculture in these areas is characterized by the sluggishness and stagnation created by the unproductive labor. As it was observed earlier in Nurkse's argument, the marginal productivity of labor in agriculture is zero, and at times

⁴²Ibid., p. 45

negative, which shows the existence of disguised unemployment. This fact emphasizes the need for the transfer of labor from agriculture sector to non-agriculture sector. By improving the agricultural productivity, a country can first free the farm sector from the disguised unemployment. Second, it can employ the released labor force in production and creation of social overhead capital and feed them with the increased productivity in agriculture. When the productivity of agriculture is increased, a potential market for the out-put of the manufacturing sector is created; for when productivity of the farmer increases, he is able to consume manufactured produce over and above the means of subsistence living.

Many writers such as Ranis and Fei,⁴³ Lewis,⁴⁴ and Nurkse,⁴⁵ argue that at first the productivity of agriculture need not be improved through the introduction of machinery and technical tools and that there is already a surplus in agriculture and can be extracted to support the unproductive labor, disguised unemployed, when it is drawn out of agriculture sector and moved to urban sector. This, they argue, can proceed and transfer labor can take place as long as industrial jobs continue to be created. This process motivates the creation of some of the capital necessary for the industrial growth. (Creation of SOC).

⁴³J. C. H. Fei, and Gustave Ranis, "A Theory of Economic Development", American Economic Review, Sept. 1961

⁴⁴W. A. Lewis, The Theory of Economic Growth, (London: Oxford University Press, 1955)

⁴⁵R. Nurkse, Problems of Capital Formation In Under-developed Countries, (London: Oxford University Press, 1953)

Other writers such as Jorgenson,⁴⁶ and Shultz,⁴⁷ argue that the initial agricultural surplus does not exist in the underdeveloped economies, and that the labor force drawn out of the agricultural sector into the urban industrial sector would create a reduction in agricultural productivity. T. W. Shultz maintains that the concept of zero-productivity labor advanced by writers such as Nurkse, Lewis, and Rosenstein-Rodan, is based on a shaky foundation which is contradicted by empirical data. Shultz asserts that the observer of an underdeveloped economy is misled when he cannot make a distinction between an agricultural labor with zero productivity and an agricultural labor with near zero or penny-like productivity. He believes that in most cases the economists advancing and advocating the concept regard this "penny-like" productivity as zero-productivity. In actuality, Shultz claims, there are no labor forces in agriculture with zero-productivity in most underdeveloped areas. To establish his claim, Shultz cites two examples which tend to discredit the claims of those economists who believed if the disguised unemployment were drawn out of agriculture and engaged in industry or capital building the agricultural productivity would tend to increase. The first of these examples is the case of Peru where the labor force needed to build a road was drawn out of the farms closely the road being built. The productivity of these farms

⁴⁶Dale N. Jorgenson, "The Development of Dual Economy", Economic Journal, Vol. 71 (June, 1961)

⁴⁷T. W. Shultz, Transforming Traditional Agriculture, New Haven and London: Yale University Press, 1964)

decreased promptly. Another such example is the case where an increase in constructions in the city of Bel Horizonte, Brazil, drew farm workers to the city. The agriculture productivity of the farms from which the construction labors were supplied dropped quickly.

Shultz claims that the productivity should be increased through improvement in efficiency and investment in human capital. An increase in agricultural productivity is needed so that the economy can feed the removed labor from agriculture and the new "recruits" in the industrial urban sector. It is important to the process of economic development that the productivity of agricultural sector is increased and agriculture is relieved from the burden of unproductive labor as long as labor productivity remains zero.⁴⁸

From the above discussion, we can conclude that the process of economic development in the economically underdeveloped countries calls for a general transformation of such an economy from one basically agricultural to an economy with an urban-industrial sector. In such an economy, the growth of labor force would be higher than the rate of growth of the total population, and the agricultural sector will be highly productive. The fundamental role of agriculture in this case would be to release resources, mainly labor and at times capital. To do this, the out-put in agriculture must increase. The released agricultural resources will be absorbed by the industrial sector. As it can

⁴⁸Erik Thornbecke, The Role and Function of Agricultural Development in National Economic Growth, p. 15

be seen here, the agricultural sector and the industrial sector are dependent and interrelated factors in the process of economic development. The question of how much of the released agricultural man-power the industrial sector will be able to employ is determined by the amount of investment in the industrial sector, by technological innovation, and the "labor-using bias of the innovation."⁴⁹

⁴⁹Ibid., p. 23

V. SUMMARY, CONCLUSION, AND APPRAISAL

The discussion of the meaning of underdevelopment and a criterion according to which an economy could be classified as underdeveloped were the beginning steps of this study. It was established that an underdeveloped economy is most usually characterized by a low per capita income and unutilized resources and that if the economy had sufficient capital these resources would be utilized. It was further established that the underdeveloped economies are faced with a persistent and circular stagnation which is caused by low capacity to save which in turn resulted in low productivity. The economists call this the "vicious circle of poverty." It was maintained that such a circle is vicious because it is semi-stable and persistent. In discussing Professor Nurkse's argument for balanced growth, it was observed that the low productivity was also caused by the size of the market which is rather small in the underdeveloped countries. This could be remedied, Nurkse believes, by applying simultaneous doses of investment to a number of complementary industries which depend on one another for their success. It was also observed that Nurkse believes that there is a "disguised unemployment" in the densely populated, agriculturally backward countries which could be drawn out and employed in the production of Social Overhead Capital. This, he maintained, is also a source of capital accumulation. In case of sparsely populated backward areas,

he claims that the productivity needs to be increased in agriculture so that more power could be released for the industrial sector.

Albert Hirschman was the second author to be studied. He presented a theory of unbalanced growth. Hirschman agrees that a "vicious circle of poverty" does exist, but he disagrees with the "balancers" in that he does not accept the contention that economic development is held back by specific shortages. He maintains that the process of economic development is held back because of a lack of ability to make development decisions. This ability is a scarce resource. He further argued that in the underdeveloped economies, there is a need for an inducement mechanism. There should be a sort of "lead-lag" process between the Directly Productive Activities and Social Overhead Capital. The development could take place through (a) shortage or excess capacity of Social Overhead Capital, and (b) shortage and excess of the Directly Productive Activities. Both of these, although development via excess SOC he held more useful, could create a disequilibrium resulting in economic development. He maintained that the initial investment should be encouraged in those industries with "forward" and "backward" linkage effect. It was further observed that Hirschman holds inflation, balance of payments disturbances, and population as being stimulants to growth.

Harvey Leibenstein was the second of the "unbalancers" to be studied. He also agreed to the existence of some type of the "vicious circle" and maintained that backwardness is characterized by a "quasi-stable" equilibrium. He explained that the economic

development is the outcome of the struggle between two opposing forces of "income-depressing" and "income-generating" factors. There are always "stimulants" which tend to push the economy away from the equilibrium, and "shocks" which tend to bring the economy back to the equilibrium level, are applied to the economy. For small value of "stimulants", the income-generating forces are not able to create enough momentum to break out of the "vicious circle of poverty." Therefore, Leibenstein argued that there is a "critical minimum effort" needed to be applied to the economy to create such momentum. In the underdeveloped areas, he expressed that there is a need for a change in mores and traditional values so that the entrepreneurs when they call the "growth agents" would be induced to engage in "positive-sum" activities rather than "zero-sum" activities.

The argument between the "balancers" and "unbalancers" can then be summarized: they both agree on the existence of the "vicious circle of poverty", and they both see the need for a break-through out of these circles. The "balancer" believes that to create an economic growth there must be a balanced investment in the complementary industries; while the "unbalancer" believes that there should be an unbalanced attack at key points.

The last theory dealt with was the theory which assigned a key role to agriculture in the process of economic development. The proponents here see the process of economic development as a transformation of a dominantly agricultural economy to an economy with an urban industrial sector and a highly productive agricultural sector. On this question there are also two opinions: the

first being the opinion of those who assume that in the underdeveloped areas there is a disguised unemployment in the agricultural sector (at least in the densely populated backward areas) which needs to be drawn out and put to work on capital projects or employed in industrial sector; and the second opinion is cast by those who argue that there are no disguised unemployment and that the productivity of agriculture should increase before any man-power could be released.

Conclusion and Appraisal

The above theories, as in most cases, are abstractions. The abstractions will not always lend themselves to the actual world properly. A theorist tends to construct a generalization from a specific case, though this is by no means the standard approach used by all theorists. It is perhaps possible and highly probable that a theorist takes an economic variable, study it in a few specific cases and try to reach a generalization about real economic system and in many instances the theory advanced will be consistent with the real world. This is desirable and in fact perhaps necessary. The theorist at least must be thoroughly familiar with the economic variables being studied and usually this is the case. The theory is then tested against the actual world for its validity and logical consistency. In case of a theory about economic variables such as prices, labor, income, capital, etc., the test of theory in actual world is relatively simple and uncomplicated. But unfortunately this cannot be said about the theories of economic development in general. It would be extremely

difficult though possible to test an economic development theory. One has to be able to observe the results of the application of a theory in the real world to be able to deduct conclusions about the validity and logical consistency of the theory. Under such a circumstance, the only test of a development theory is to see to what extent the theory has taken the exogeneous factors influencing economic development in a country into consideration.

In order that one becomes familiar with endogenous and exogeneous factors influencing economic development of a country, especially the early stages of development, one has to know the country well. Since history, culture, religious institutions are as influential, and at times more so, as the economic factors one has to take all these exogeneous factors into consideration. But these factors and institutions are markedly different from one underdeveloped country to another. One then would need an economic development theory which would be applicable to a particular underdeveloped economy. Due to these facts any development theory which would choose to ignore the exogeneous factors influencing a countries development is of necessity too abstract to be applicable to an underdeveloped country. This is the case more or less with the theories discussed above. Even though some of these theories discuss the exogeneous factors influencing the economies of underdeveloped areas, they are very seldom applicable to a particular country. Because of the basic differences in the exogeneous factors it is unreasonable to try to take a particular country, study it, theorize a set of propositions and generalize it for all the underdeveloped areas as a whole.

Even if we should not consider the foregone discussion, the theories mentioned above have still other flaws in them.

While presenting the "unbalancers" point of view, it was observed that a raging criticism was mounted, especially by Hirschman, on the "balanced" theory of growth. The criticism maintained, and rightly so, that application of the balanced theory of growth to the underdeveloped countries calls for a highly centralized and advanced government. Furthermore, it requires economically well-oriented administrative agents and a highly efficient tax system to be able, first to detect productive labor from unproductive labor, and second, to draw the unproductive labor out of agriculture and employ it in capital projects, and third, to determine whether an agricultural surplus exists to be extracted in order to feed the urban-industrial population. An economy able to mobilize such efficient organizations could hardly be called a backward economy.

The "unbalancer's" point of view, although it may be justified in being critical of the "balancers" approach, still has its own deficiencies. First, there is not enough emphasis put on education in the backward economies. The "unbalancers" criticize the "balancers" theory because it maintains that the mobilization of an efficient government to carry on the process of application of the balanced growth theory is not possible in an economically backward country. Yet, in presenting their own theory on unbalanced growth, the importance of education is not considered. It would perhaps be as difficult for an underdeveloped country to realize when and how to apply a "critical minimum effort" to its

economy, or how to recognize which industry has "forward" and which industry has "backward linkage effect" as it would be for it to recognize which industries are "complementary" and how to apply "balanced growth theory." The second deficiency in the "inbalancers'" reasoning is that it tends to over-look the importance of agriculture in the process of economic development, its uses in economic development of western economies, Japan, Russia, and even China. Although in the case of the last two countries and to some degree Japan, at least in the 1920 period, there was an element of forced extraction and exploitation of such surplus; nevertheless, there existed the potential agricultural surplus to be extracted.

We can then conclude that of the foregoing arguments perhaps one can deduce only two generalizations which would be applicable to underdeveloped areas. First, that in most of these countries there is an ample need for increased productivity in agriculture. Second, that the improvement of the educative process in these countries is perhaps the most important factor urgently needed for these countries. From here on, any proposal for economic development must take into consideration the exogeneous and endogeneous factors in each country.

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REFERENCES

Books

- Agarwala, A. N., and Singh, S. P. (ed.). The Economics of Underdevelopment. New York: Oxford University Press, 1963.
- Bauer, Peter, and Xames, Basil S. The Economics of Underdeveloped Countries. Chicago: Chicago University Press, 1962.
- Galbraith, John Kenneth. Economic Development in Perspective. Mass: Harvard University Press, 1962.
- Gill, Richard T. Economic Development: Past and Present. Foundations of Modern Economic Series. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1963.
- Heilbroner, Robert L. The Great Ascent. New York: Harper and Row, 1963.
- Higgins, Benjamin. Economic Development. New York: 1959.
- Hirschman, Albert O. The Strategy of Economic Development. New Haven, Conn.: Yale University Press, 1958.
- Kao, C. H. C., Anschel, K. R., and Eicher, C. K. "Disguised Unemployment in Agriculture: A Survey", Agriculture in Economic Development. C. K. Eicher and L. W. Witt (Eds.). New York: McGraw Hill, 1964.
- Kuznets, Simon. Six Lectures on Economic Growth. New York: 1959.
- Leibenstein, Harvey. Economic Backwardness and Economic Growth. New York, 1957.
- Malenbaum, Wilfred. Prospect for Indian Development. London: The Free Press of Glencoe, Inc., 1962.
- Morgen, Theodore, Betz, George W. and Choudhry, N. K. (eds.). Readings in Economic Development. Belmont, California: Wadsworth Publishing Company Inc., 1963.
- Nichols, William H. The Importance of an Agricultural Surplus in Underdeveloped Countries. Presented at the J. S. McLean Lecture at Ontario Agricultural College, Jan. 1962.
- Nurkse, Ragnar. Problems of Capital Formation in Underdeveloped Countries. Oxford, 1953.

Rostow, W. W. The Stages of Economic Growth: A Non-Communist Manifesto. Mass.: Cambridge University Press, 1960.

Schultz, T. W. Transforming Traditional Agriculture. New Haven & London: Yale University Press, 1964.

Schumpeter, Joseph A. The Theory of Economic Development. Cambridge, Mass.: Harvard University Press, 1961.

Periodicals

Balogh, T. "Agriculture and Economic Development", Oxford Economic Papers, Vol. XII, No. 1 (February, 1961).

Barber, W. J. "Disguised Unemployment in Underdeveloped Economies", Oxford Economic Papers, Vol. XII, No. 1 p. 103.

Bauer, P. T., and Yamey, B. S. "A Case Study of Response to Price in an Underdeveloped Country", Economic Journal, Vol. LXIX, No. 276 (Dec. 1959).

Dovring, F. "The Share of Agriculture in a Growing Population", FAO Monthly Bulletin of Agricultural Economics and Statistics, (August-September, 1959).

Georgescu-Roegen, N. "Economic Theory and Agrarian Economics", Oxford Economic Papers, New Ser., Vol. XII (February 1960).

Gutman, G. O. "A Note on Economic Development with Subsistence Agriculture", Oxford Economic Papers, Vol. IX, No. 3 (October, 1957), p. 323.

Hicks, Ursula, "Learning About Economic Development", Oxford Economic Papers, Vol. IX, No. 2 (June, 1957).

Johnston, Bruce F., and Mellor, John W. "The Nature of Agriculture's Contributions to Economic Development", Food Research Institute Studies, pp. 335-356 (November, 1960).

Johnston, Bruce F., and Mellor, John W. "The Role of Agriculture in Economic Development", American Economic Review, (September, 1961).

Jorgenson, Dale W. "The Development of a Dual Economy", Economic Journal, Vol. LXXI (June, 1961).

Killey, Peter. "Organization and Productivity in Backward Economies", Journal of Political Economy, Vol. LXXVI, No. 2 (Jan, 1962), p. 303.

- Laumas, P. S. "Schumpeterian Theory of Economic Development and Underdeveloped Countries", Quarterly Journal of Economics, Vol. LXXVI, No. 4 (November, 1962), p. 653.
- Lewis, W. Arthur, "Economic Development with Unlimited Supplies of Labour", The Manchester School, (May, 1954).
- Mellor, John W. "The Process of Agricultural Development in Low-Income Countries", Journal of Farm Economics, (August, 1963).
- Mellor, John W. "Increasing Agricultural Production in Early Stages of Economic Development: Relations, Problems, and Prospects", Indian Journal of Agricultural Economics, Vol. XVII, No. 2 (April-June, 1962).
- Mellor, John W., and Stevens, Robert D., "The Average and Marginal Product of Farm Labor in Underdeveloped Countries", Journal of Farm Economics, 38: 780-791 (August, 1956).
- Mvint, H. "An Interpretation of Economic Backwardness", Oxford Economic Papers, Vol. VI, No. 2 (June, 1954).
- Nicholls, William H. "The Importance of an Agricultural Surplus in Underdeveloped Countries", Journal of Political Economy, Vol. LXXI, No. 1 (February, 1963).
- Perkins, M., and Witt, L. "Capital Formation: Past and Present", Journal of Farm Economics, Vol. XLIII, No. 2 (May, 1960).
- Rainis, Gustav, and Fei, J. C. H. "A Theory of Economic Development", American Economic Review, (September, 1961).
- Rainis, Gustav, and Fei, J. C. H. "Innovation, Capital Accumulation, and Economic Development", American Economic Review, (June, 1963).
- Rosenstein-Rodan, P. N., "Problem of Industrialization of Eastern and South Eastern Europe", Economic Journal, Vol. 53 (June-September, 1943).
- Schultz, T. W. "Reflection on Agricultural Production: Output and Supply", Journal of Farm Economics, Vol. XXXVIII (August, 1956), pp. 748-762.
- Streeten, Paul. "Balanced Growth", Oxford Economic Papers, Vol. XI-XII (June, 1959), p. 170-190.
- Streeten, Paul. "Unbalanced Growth", Oxford Economic Papers, Vol. XI, No. 2 (June, 1959), p. 167.
- Stevens, Robert D. "The Average and Marginal Product of Farm Labor in Underdeveloped Countries", Journal of Farm Economics, Vol. XXXVII (August, 1956).

- Thorbecke, Erick. The Role and Function of Agricultural Development in National Economic Growth. A paper presented at the conference on the Economic Development of Agriculture. Center for Agricultural Economic Development, Iowa State University. Nov. 9-12, 1964.
- Uzawa, H. "On a Two Sector Model of Growth", Review of Economic Studies, Vol. XXIX, No. 78 (October, 1961); p. 30.
- Wonnacott, P. "Disguised and Overt Unemployment in Underdeveloped Economies", Quarterly Journal of Economics, Vol. LXXVI, No. 2 (May, 1962) p. 279.

THE VALIDITY OF BALANCED AND UNBALANCED
GROWTH THEORIES WITH RESPECT TO THE
PROCESS OF ECONOMIC DEVELOPMENT

by

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ABSTRACT

The purpose of this report is to examine the leading "balanced" and "unbalanced" and "agricultural surplus" theories of economic development.

All the principal writers advocating these theories agree to the existence of a persistence circularity of economic underdevelopment. To the "balancers", the breaking of this circle is possible through the application of "balanced" doses of investment to a united front of series of complementary investments. The "unbalancers", on the other hand, argue that the "balanced" application of investments is not sufficient for an underdeveloped economy to achieve a "self-sustained" growth. Thus, they advocate the application of a "minimum quantum" of investment to the strategic spots in an economy.

Finally, there are those who maintain that a self-sustained growth cannot be achieved if agriculture is not given importance. By assigning a key role to agriculture, these authors claim that a substantial amount of "agricultural surplus" is needed before industrialization could take place and achieve considerable momentum.

The author however feels that in order for an economic development theory to be applicable to an underdeveloped country, it must take as many exogeneous factors, influencing the development of a country, into account as possible. Otherwise the theory would be too much an abstraction to be recommended as an economic development theory.

The primary purpose of this report, however, is the presentation of the major theories of economic development.